

# The Interactions of Wage Changes and Sustainable Investment – Example of Lithuania

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**ABSTRACT**— *The paper describes the search for an answer to the question – how the knowledge, innovation and technologies interacts and how the formation of knowledge, innovation and technologies (KNIT) cluster leads to development of social sustainability. The objective of this article – to identify the main factors that have impact on interactions between wage changes and sustainable investment. To achieve this objective, the following tasks have been implemented: the analysis of the theoretical aspects of employment and peculiarities of its support; the analysis of theoretical aspects of wage and sustainable investment; the identification of knowledge, innovation and technologies integration, which leads to development of social sustainability (the increase of employment and the volume of sustainable investment). In this article the authors focused on sustainability development of an economically, politically and territorially autonomous country with scientific knowledge, innovations and technological progress as the main resources, which directly influence the factors of development. Special attention is given to business sustainability. The authors demonstrate the concept for knowledge generation, design of the national social sustainability development strategy and functional innovation and technology integration into strategy implementation.*

**Keywords**— knowledge, innovation, technologies (KNIT) cluster, sustainable investment, wage.

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## 1. INTRODUCTION

The changes in the country's economy appear by acquisition more new scientific knowledge and fostering innovation. In recent years Lithuanian economy has grown rapidly and now is predicted that, in the medium term, the country will maintain economic growth, although many economists say that Lithuania lags behind in terms of attracted volume of foreign investment and is in the last place in the whole European Union by this factor. However, there are some positive changes in the foreign investment policy, the number of created services centers of foreign investors increased in Lithuania over the past few years. This growth of the country's economic performance positively affects the growth of employment changes. The employment changes are explained through the influence of the innovation, demand, wages and other factors on the labour market [3].

The main purpose of the article is to identify the main factors that have impact on interactions between wage changes and sustainable investment. To achieve this objective, the following tasks have been implemented: the analysis of the theoretical aspects of employment and peculiarities of its support; the analysis of theoretical aspects of wage and sustainable investment; the identification of knowledge, innovation and technologies integration, which leads to development of social sustainability (the increase of employment and the volume of sustainable investment).

The hypothesis of article - the knowledge, innovation and technology constantly interact and their interaction leads to formation of multiple cluster that leads to social sustainability development.

## 2. EMPLOYMENT AND PECULIARITIES OF ITS SUPPORT

Employment is often defined as jobs supply to all who wants work [13]. Already Lithuania has achieved one of the objectives of Lisbon – employment rate of the women was 61 percent, while overall and 55-64 years-old population employment was 63,6 and 49,6 percent in 2006 years, while by 2010 years was almost reached two other Lisbon objectives. Lithuanian population employment is also affected by other factors mentioned by scientists [15]: globalization (differences in labour market regulation), innovation and technologies, economic emigration and youth unemployment, aging of population and labour force, wages, unemployment insurance, informal employment.

It is expected that under any circumstances in the medium-term labour market would develop in labour-friendly direction. This will result an increase in labour force demand and decrease of labour force supply, growth of wages and job quality.

Wage growth is influenced by such factors as labour demand growth, increasing productivity, growth of minimum monthly wage, which enable the growth of labour force demand. Retraining the labour force from low productivity sector to higher productivity sector mitigate the labour shortage problem. When it is difficult to attract new employees and retain workers, the daily employers' necessity becomes available employee motivation, continuous investment in development of their professional competencies and working environment development. Measures to preserve existing employees and attract new for created job, selected by companies, will lead to improvement of job quality. The proposed wage, working conditions, social guarantees will lead to filling free jobs options. Decreased free job offers supply will strengthen competitiveness for employees, will change employer attitudes towards older workers, the disabled and other people, hardly integrated to labour market.

If labour force supply decrease, here may not be enough people to compete in the labour market and to complete the existing jobs. Here will remain a large part of which cannot compete in the labour market, without professional training and with the low marketable professional qualification. Labour force demand will exceed the registered unemployed number. The disproportion of labour force demand and supply, both the quantitative and qualitative terms will lead to intensive development of competitiveness of labour force. Therefore, it is necessary to continue to provide the opportunity for unemployed people and workers, who are at risk of unemployment, in order to gain valuable knowledge and skills, which are necessary in labour market. The formal training of mentioned persons and informal education will be funded. It is necessary to promote training, which will help for learners to acquire practical knowledge, capable to raise their qualification and improve their situation in the labour market, business start-up initiatives of unemployed will be supported by the acquiring more necessary knowledge about business environment, its establishment and development. Great attention will be paid to long-term unemployed by promoting their motivation, upgrading necessary knowledge and skills. It also provides support for initiatives of young people, so they will have practical training in enterprises. Actually, very important is to improve knowledge and skills of elder people and apply them in the labour market. First of all, it will be used to fund actives, which result is the employment of persons, which were really and continuously training.

Persons, who failed to find work in the homeland or are dissatisfied with low wages, are leaving to work abroad. The expectations of people to find a job in a foreign country or the desire to earn more lead to emigration. Economic emigration becomes the greatest problem of Lithuanian labour market, because many qualified workers, required for the labour market due to the unsatisfactory working conditions go to live and work abroad. As a consequence – is the decline of labour force, because most emigrants are working-age people. The rapid emigration of younger people, birth rates decline and the mortality rise leads to problem, with which face Lithuania and other European countries – the population and labour force aging, which reduces employment reduction and increases unemployment in the country. The migration also changes the structure of wage [12]. The country increased the retirement age of the population in order to mitigate this situation and the main priority is increasing employment of older people in the promotion of employment and inclusion in the labour market.

This problem needs to be solved, because only by ensuring the perspectives for those employees can be expected to maintain a consistent rate of growth of economy in the medium term. Therefore, here are necessary to invest in human capital, wage and social guarantees raising, further reducing the income tax, to encourage labour mobility in different employment sectors.

Employment support – is an approach that seeks to focus on individual support for people with different capabilities, helping them to enter the labor market and employ [10]. The legal framework of employment support system, its objective, tasks and functions of employment promotion policy, employment support measures and their implementation and funding is regulated by the Employment Support Act of the Republic of Lithuania.

The objective of the employment support – to achieve full employment, reduce social exclusion and strengthening social cohesion. The Employment Support Act of the Republic of Lithuania provides to support such tasks and to use appropriate measures. It is necessary to use basic employment support measures: basic employment support services, active labour market policy measures, employment support programs.

Tasks of employment support systems and employment support measures are implemented in accordance with the equal laws of men and women and non-discrimination principles. Government, Ministry of the Social Security and Labour, other ministries, other state institutions, municipal institutions, other legal and non-legal persons, implement employment support policy. The institutions implement employment support policy, which coordinates, analyzes and assesses the employment support policy implementation by the European Employment Strategy, organized and financed the employment support measures and perform other employment-supported functions set by the law. Employment support in labour market especially integrates with innovation. Recruitment and dismissal regulation adjust the power of union, regulates the investments and wages when innovation is applied. This is based on the fact, the capital earned

money finances that wage fund. This acts as a tax that increases investment costs and reduces the company's willingness to invest.

### **3. THEORETICAL ASPECTS OF WAGE**

Wage is the most important source of income for working people, which affects their living standards, the main components of consumption and country's economic activity. Labour productivity and wages are related to the competitiveness in the macro and micro level. Competitiveness is defined as the set of institutions, policies and factors, which operates the country's competitiveness when level of productivity determines the level of sustainable development that characterized the country. Competitive economy will be able to produce higher incomes for their residents. Labour productivity can be explained also as efficiency of labour force. The growth of labour productivity leads to volume of production growth and society becomes richer and businesses can increase wage, dividends or expand production scale without increasing prices. Labour productivity and wages becomes the main problem of economy and law.

In the narrow sense, wage is understood as [26]:

- remuneration paid to employees for the available labor utilization;
- the amount of money, estimated for a particular reporting period;
- wage, determined in accordance with the labour contract.

It follows that the wage – it is money, received for the certain work. Wage level is determined by the market and institutional factors. The key market factors are the worker's professional skills, competence, the level of regional development, the social and economic possibilities of the country, living standards. The main factors that determine the level of wages are also work time, used energy, the content of the work and value for the organization, staff competence, the quality of work, supply and demand of the labour market and the amount of wage in similar organizations.

It is necessary to mention that the wage is an economic category, which has a number of basic functions [22]:

- replacement – wage leads to meet not only physical but also spiritual and social needs;
- motivation – promoting the satisfaction of employee ongoing work and their motivation to increase productivity;
- function of social guarantees – wage that is paid on time ensures the recovery of cost of both simple and complex work case;
- compensatory – occurs when the employee is working in worse conditions than is accepted (night shift, working in difficult conditions etc.), but for this work he receives a relatively higher wage;
- cumulative – wage ensures the funding of basic needs in the future.

Talking about wages it is possible to distinguish the basic objective of the wage – help to implement the strategic objectives and short-term objectives of organization while the employees are developing their qualification, competence and they are motivated [25]. Wage always was the important economic and legal problem. Solving the wage problems the interests of employees and employers are directly facing. These issues are solved in accordance with so-called social partnership principles or opposed to each other. Wage organization is based on following main principles [25]: equal pay for equal work, higher wages for skilled and complex work, lack of payment equality, continuous improvement of wage systems, taking into account the nature and conditions of work.

The state and the employer regulate wages. On that base, it is distinguished two wage regulation methods: state and local (level of company's). The state paid considerable attention for the wage regulation when the law guarantee the consolidated preferences for the employees (for example, the requirement to pay wage not less than the minimum wage) minimum [1]. The main factors that influence the volume of wage in local area are: working time and used energy, the content of work and value for the organization, worker competence, the quality of work, supply and demand in the labour market, the amount of wage in the similar organizations. However, the state guaranteed benefits do not provide excellent work of employees. Therefore, the companies trying to reach better results determine more rights and wage conditions for employees than those rights, guaranteed by the state.

#### **3.1 Organizational models and forms of wages**

The company according to its needs choose the most appropriate wage model, form and setting reasonable labour rates and fees has the ability to reach the objective of each employers – to make the best use of each employee's potential.

The most common wage organization models [8; 26]: American, Japanese and Western Europe. This is only theoretical models. In practice, it may be different strains of these models, different combinations. These models reflect

not only the company's selected and applicable wage principles, but also well-established social values. So, choosing one or another model this should be taken into account. For example, using only a Japanese wage model, where very important is age of the employee, is a risk of damage the Labour code of the Republic of Lithuania, where is declared the equality of work subjects, which cannot be distinguished by the criteria unrelated with the professional qualities. However, the above-mentioned methods can be the basis on which company determines the applicable wage organizing principles.

*American wage model.* This model is characterized by strict concretization of the work. The labour relations parts very precisely discussed the employees's work functions, the requirements of their qualification and work experience, the chain of command, necessary personal characteristics (associated with the performance of duties). The wage differentiation must be, when there are talking about such requirement and the methodologies of work complexity and employee's qualification and personnel skills assessment. He is attributable to a constant additive unit labour payment strain. This form of payment encourages workers to increase volume of the production, if the premium will be paid.

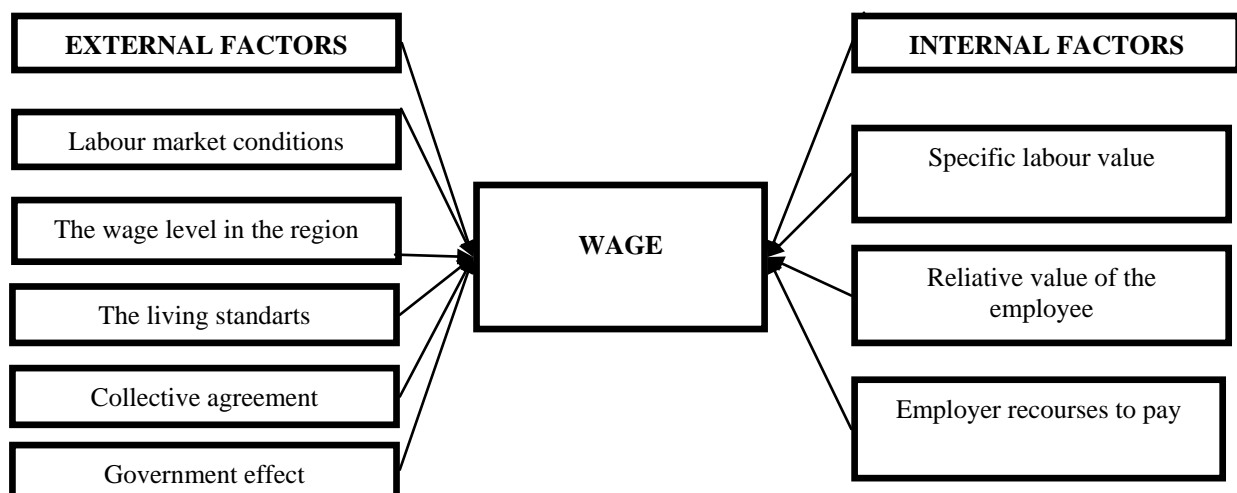
*Japanese wage model.* The main criteria that distinguishes this model from other is the fact that determining the employee wage the main attention is paid not to the quantity, quality or the complexity of work, but to the questionnaire information (age, education, work experience). The evaluation of work complexity is usually secondary criteria. Difference from the American wage model is that the content of labour and employee qualification are not so significant than employee's age and work experience while differentiating staff rate wage. Work experience and employee's age in this model usually leads to more than an evaluation of job complexity. The model attributes are two strain of timetable employment forms [26]: *Japanese traditional timetable wage form* and *Japanese synthesized according to the results of temporal variation of wages*.

*Western Europe wage organization model.* It is argued that this model is an intermediate between the American and Japanese models. The most important factor in determining the wage is the professional readiness and the complexity of the work. The employee's age and work experience are supplementary criteria of wage. In light of these criteria, the strategy of employee's career is formulated. This is especially characteristic for civil servants and professionals.

To conclude this brief theoretical overview it should be noted that the employer has the right to choose the appropriate wage organizational model. However, it is necessary to remember that no matter what the wage organizational model will be chosen it should be saved the employee's right to a fair wage that is established by the Constitution. Although this provision is rather abstractive and subjective (usually an employee's and employer's opinion about wage is different), but the employer can not ignore it. The main criteria that determine the level of wage is the labour quantity and quality. The company according to its needs should choose the most appropriate wage organization model and set reasonable labour rates and fees, and then it will have the ability to reach the every employer-coveted objective – better use the potential of each employee.

### 3.2 External and internal factors that affect the level of wages

The economic, technical and social factors affect the organization of payment for work. Strict job classification and the fixing of wage level are refused increasingly. Not only the quantitative and qualitative aspects of work results influence the wage, but also the employee's qualities - qualification, potential, the level of cooperation with colleagues and others. Wages and salaries directly or indirectly influenced by many factors. They can be divided into two groups - external and internal (Figure 1) [25].



**Figure 1:** The factors which affect the level of wages (compiled by authors, based on [25])

*External factors:*

- *Labour market conditions.* The labour market shows a ratio of supply and demand of skilled labour force. When supply exceeds demand, employers can pay less. Conversely, when demand for skilled labour exceeds the supply, employers are forced to raise wages. However, there are cases when this regularity disappears. For example, the labour union could force the employers to pay fair wage even at high number of unemployed members of union.
- *The wage level in the region.* It orients employers to pay the appropriate amount of wage to a certain speciality and skill workers in the region.
- *The living standards.* Collective agreements usually expected level of wage indexation, taking into account the inflation rate.
- *Collective agreement.* One of the main function of collective agreement of trade union and employer is an agreement about wages and wage conditions. The objective of trade union – to increase real wage while creating a new collective agreement. Therefore, wages are higher in regions, where trade unions are well-organized.
- *Government effect.* The government regulates the amount of wage of budget agencies. The Government shall establish for all employee's at least the minimum wage as well as labour law regulates the payment for the unhealthy work conditions, night work, holidays and work overtime.

*Internal factors:*

- *Specific labour value.* Companies with no formal wage regulatory (provisions) set the value of each work subjectively. Then the amount of wage is determined by the labour market and collective agreements. Companies with regulated wage system usually works in different ways when value of the specific work is determined. When wage regulation deals with collective agreements, work evaluation methods help to create the contract and then monitor compliance with the agreed wage conditions.
- *Relative value of the employee.* Sometimes in some industries especially in the construction, trade unions seek equal pay for different professions. This equation is based on the fact that the same skilled workers should receive equal pay. Then wage will lose the role of motivator. It is therefore appropriate to pay the maximum amount of work carried out by personalizing the content, as well as employee behavior at work through various incentive methods that they strive constantly to improve the quality of their work.
- *Employer recourse to pay.* Wage amount at state budgetary organizations depends on the amount of state budget allocation. Wage amount of other companies is limited by the size of the profit that the company should gain from the sold production and services. Then the company can pay a higher or lower wages partly depends on the labour productivity. Economic conditions, competition also affects employer's recourse to pay the appropriate wage. Competition may be forced to reduce production price and in that way reduce the company's revenue. This reduces employer's recourse to pay high wages. In such a situation employers actually have the small selection: reduce wages, dismiss employees or to choose the worst option – to go bankrupt.

Summary, choosing the wage organization model it is necessary to assess the level of wages affecting factors, because they directly or indirectly influence the employee's wage level. A significant impact on the country's employment and wage level have the investment performance. Currently, in order to affect the growth of these indicators each country moves priorities for sustainable development, which should promote high levels of employment in the country, which strengthening of the education, innovation, social and territorial cohesion and human health and the environment. Sustainable economic development incentives must be implemented at all levels of society and to act for the benefit of sustainable development: 1) taking care to sustainable investments both in the public and the private sector would be profitable; 2) directing research into knowledge and solutions for sustainable development support; 3) influencing consumers' decisions at all levels. So, it is necessary to define the sustainability and sustainable investment.

#### 4. SUSTAINABLE INVESTMENT

It is very difficult to define sustainability because there are many confrontations with an immediate problem, in that sustainability has become used in very different contexts that have almost become meaningless. Many authors [2; 5] define sustainability as orientation of activity towards the today's needs satisfying, leaving for future generations the possibility to satisfy their needs as well, is the main concept of science capable of finding the solution for the mentioned problem.

Not many authors do their researches in sustainability science, because it is a plenty new approach. Other author [4] describes sustainability as concept, which is about the same things that engineering is about - achieving outcomes in



responsible ways. It is about achieving a specified objective in a way that can produce investment return. Nowadays, sustainability science analyzes the consequences of global environmental, but yet not much research done in this area. The grounds of this relatively new science can be found in the concept of sustainable development, proposed by the World Commission on Environment and Development (1987) (WCED, also known as the Brundtland Commission). Sustainable development is defined as "development that meets present needs without the possibility of future generations to meet their own needs." WCED for this argument has gained global support, arguing that the development should ensure the economic and environmental coexistence.

When it is talked about sustainability and sustainable development, investment can be understood as a discussion between present and future. What is more, it is very important to analyze whether today capital investments will give the required return in the future [16; 17]. When it is talked about sustainable business, sustainability must be defined as acting with long term goals and consequences, so sustainable business must be managed in this way that its processes or overall state can be maintained indefinitely [23].

Big companies are making their decisions based on their environmental, social and economic impacts, because they recognize that every act that is detrimental to society in some way may come back as a negative repercussion on the business itself. This kind of forward thinking might not have worked in the earlier days of free enterprise but is becoming more common today among even large corporations, as managers and investors realize that environmental and social impacts are of great importance to the buying public and purchasing habits are being driven accordingly. A company that aims for corporate sustainability is also probably competitive, has good management, and long term potential for value, three criteria looked for by biotech investors.

On the other hand, a company with a track record for making decisions based on local and global sustainability might appear to take losses in the short term for higher costs or smaller profit margins, but can profit overall from higher employee satisfaction and productivity, and a better reputation and long term following due to public perceptions of the company.

Sustainable investing (hereinafter - SI) - is the investment approach that integrates long-term environmental, social and governance criteria into investment and ownership decisions with an objective generated goal assessing of the financial return on risk.

These financial criteria are used in conjunction with traditional financial criteria, such as cash flow and price - value ratio. The main focus of risk-weighted financial returns distinguished in sustainable investing. So, sustainable investing can be defined as a conforming to attitude of institutional investors to increase the financial return assessing the risk [6].

Sustainable investment has developed during the last several decades. Consequently, it is a field with essential number of terms and concepts that are used differently in many markets [20]. Figure 2 illustrates the evolution of sustainable investing.

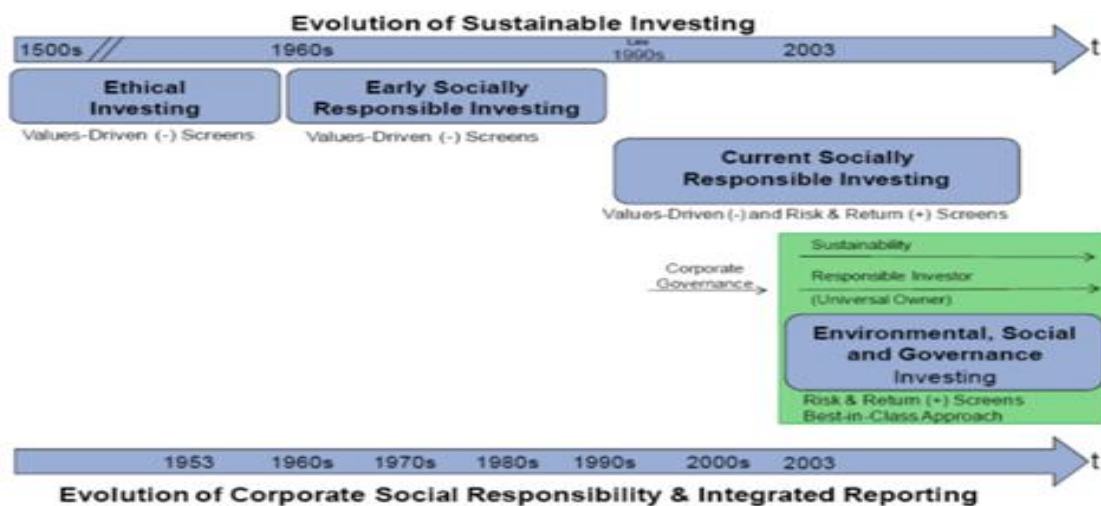


Figure 2: Evolution of Sustainable Investing [20]

The majority of empirical research shows that sustainable investing approach can lead to a better financial return balanced with the risk. However, only a small percentage of investors incorporate environmental and social factors into their investment and decision-making process. So it can be said that sustainable investing has the potential to become a major approach among investors, especially those who are willing to take a long-term perspective.

In view of globalization processes, sustainable investing is used as a generic term to describe the long-term environmental, social and corporate governance criteria in order to contribute to sustainable development, integrating the financial goals of investors, environmental and social problems [22].

The primary model of sustainable investing is a long-term investing that is intergenerationally efficient and fair [9]. Many scientists in their works describe the methodology of sustainable return on investment. According them, investors can earn more investing return with higher guarantee using sustainable return on investment (hereinafter – SROI) methodology that identifies the initiatives to accomplish main goals and optimize the total value of investing decision. This methodology can determine the full value of investments by attributing monetary values to all costs and benefits of investment decision – economic, social and environmental. SROI provides the business for making sustainability decisions that can make investments economically, socially and environmentally sustainable return on investments [21].

In the scientific literature, there are not many definitions of sustainable investment return on investment. Often it can be found definitions of sustainable return on migration studies. One way of defining sustainable return is to see it as involving the absence of re-migration. Such a definition might be attractive to home or interior ministries who are concerned with the successful removal of unwanted immigrants [7].

Over the decades, the major goal of every business was financial profit, but in view of the ongoing process of global sustainability, the goal of financial profit must be balanced with social and environmental goals. In this way, social and environmental systems can lead to solutions that have long term financial viability and generate not only financial profit but already wealth. So, according to this view, financial profit can be achieved without damage to society or the environment.

## **5. INTEGRATED KNOWLEDGE, INNOVATION AND TECHNOLOGY CLUSTER AS A SELF-REGULATING COMPLEX SYSTEM**

In the scientific literature and pragmatic summaries, it is hardly possible to detect a more detailed interpretation of the progress of interaction between science, knowledge, innovation and technology aimed at sustainable development and the form of interaction between development and integrated KNIT cluster.

The key connective component of the integrated KNIT cluster is human intellect. However, it remains unclear how the cluster, which is mainly composed of heterogeneous elements and is focused on implementation of different functions, accumulates the development potential. Also, the tangential question remains as to whether development opportunities for understanding and implementation of the past has been selected adequate structure of KNIT cluster in the particular situations. The main attention must be given to confrontation with the past both for understanding the development of the sustainability effect and integrated KNIT cluster opportunities to enhance this effect.

The complexity of integrated KNIT cluster structure and its changes is associated with the complexity of process or system selected for testing. There is no doubt that understanding of the KNIT cluster structure for such sophisticated processes as regional or national development is not only significant but also requires high-level scientific efforts. The object of this research is the analysis of KNIT cluster structure pursuing sustainability of development in a particular country.

### ***5.1. Purposeful development of knowledge, innovation and technology clusters as the key assumption for integrated KNIT cluster efficiency***

As already mentioned, development of knowledge, innovation and technology cluster and prospects of its integrated network or fabric are the most complex and relevant human problems. Once grasped, they might reveal acceptable and realistic development paths as well as survival strategies and success guarantees for the humanity or individual countries. And it is understandable if remember that basic scientific knowledge generation coupled with the emergence of the universe or the creation of a phenomenon when here may not be enough time for human existence on earth. However, about physical, biological, cosmic and other regularities can only be considered conditionally.

It may be easier to understand the human origin as well as ways and governing laws applicable to the evolution of human society into the contemporary society, which would reveal applicable management possibilities. However, this is not a reason to be overly optimistic. The ability to intervene into human genetics and social development threatens with destruction of the core value of human nature. Such investigations continue accelerating.

Actually, science is intensively interested in the evolution of human cognition, including the complex physical and cosmic processes and substances. This provides hope for pragmatic understanding.

In this article, the authors will try to discuss about the need to develop knowledge, innovation and technology clusters and assumptions for implementation of possible science-declared guarantees for sustainable investment to social sustainability development. Also, about intelligent investment strategies for the implementation of universally sustainable development strategy in social sustainability subsystem.

#### ***5.1.1. The value of knowledge, innovation and technology clusterization***

At this moment there is extensive integration of knowledge, innovation and technology, and the growth of knowledge demand and importance promotes the emergency of multidisciplinary specialized knowledge, innovation and technology (KNIT) cluster. In this article the cluster is treated as interconnected several subsystem (knowledge innovation and technology) whole, which has a general object [18]. The essence of such a cluster is to create a single existing and acquired system of knowledge, innovation and technology, which formed the base for the proper management of object, the state or foster sustainable development.

Multiple cluster intelligence is based on knowledge as a key resource that promotes the ability to compete even in the fuzzy environment. This uniqueness of knowledge is determined by the circumstances when knowledge becomes a substance that nurtured process what still is not associated with concomitance realization of the energy and there may be opportunities to examine the widest spectrum [19]. Knowledge are assessed as the ability to perform specialized tasks and as a way of communication, experience (i. e. through the prism of skills or experience), so it is appropriate to gather new knowledge to improve their existing skills and deepening experience [14]. Information is invisible asset, which is considered as an essential resource in the creation of the value. Proper management of information increases the acquisition of knowledge about competitors and customers and business competitiveness.

Improperly management of knowledge leads to lose of its value faster than material resources, so it is necessary to use existing knowledge as efficiently as possible. If knowledge demand is reduced by increasing knowledge supply here rises the possibility of use of improved technologies and foster innovation in business processes [11]. It follows the widespread use of IT at business processes become a major factor in the success of technology in fostering attention to such key factors as: assets, knowledge, skills and organizational processes. Based on analysis and interaction of these factors occurs the integration of knowledge and technologies, which promotes not only search and application of improved management methods, but also the organizational changes of business structure or more detail presentation of the industry characteristics.

From this point of view authors can argue that one of the key factors of competitive advantage, which stimulating the emergence of new technological achievements in the development of expertise and knowledge is innovation, especially technological [24]. Technological innovation occurs at the conjunction of technologies and innovations, when the technology has become increasingly important in the evolving economic world in the field of business. This kind of innovation is regarded as a key competitive advantage factor stimulating the emergence of new technological advances and allow the possibility of a return in developing expertise and knowledge.

Innovation encourages an interactive process of generation and application of new knowledge. The companies by using innovations improve their position in the market, so consumer needs are met better, operational efficiency is increased, product quality is improved, project life cycle is reduced and remain competitive. During the analysis of internal and external factors, the obtained results can be used for targeted fostering innovation and their application in several ways. In the broadest sense, innovation can be customized in 4 ways: statically (transferring existing knowledge); dynamically (learning collectively); formally (on the basis of regulations and rules); informal (communicating).

It follows that the development of innovation and technologies leads to highlights of lack of necessary knowledge. The mentioned methods of innovation application include sharing of tacit and explicit knowledge. This statement is confirmed by the author's view that knowledge, innovation and technology constantly interact and their interaction leads to formation of multiple cluster, which creates preconditions to foster national social sustainability development, when versatile knowledge development has exclusive attention.

## ***5.2. Management of sustainable investment for national social sustainability development and efficient integration of knowledge, innovations and technologies***

A period may be called historically significant, provided the advancement of technologies, knowledge and innovations is named as the main factor that increases business efficiency, sustainability and coherence. Various projects and research papers evidence this.

### ***5.2.1. Principles and planning possibilities of financial resources for national social sustainability development***

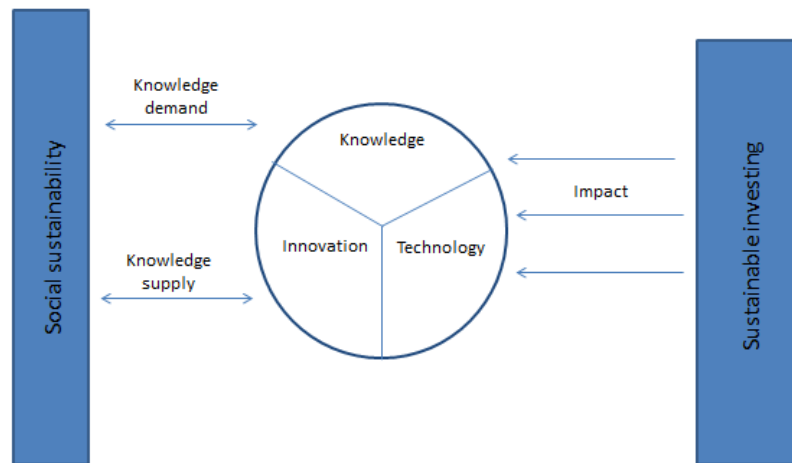
In this work, including the sustainability analysis of business development, the authors focused on sustainability development of an economically, politically and territorially autonomous country with scientific knowledge, innovations and technological progress as the main resources, which shape or directly influence the factors of development. Special attention is given to business sustainability. However, at the same time, the authors will attempt to take account of the public sector development, the development of educational systems, and validity of other scientific decisions.

For the achievement of these goals, it is necessary to use the adequate methodology also concretizing the social sustainability development model as well as developing interactions of knowledge concepts with surrounding facts categories, information, intelligence and wisdom.

This text is directly based on the [17; 18], so here is used the visual development of investment strategy, fostering the development of universal social sustainability development.

Figure 3 demonstrates the scheme for knowledge generation, design of the national social sustainability development strategy and functional innovation and technology integration into strategy implementation.





**Figure 3:** The impact of knowledge, innovation and technologies interaction and KNIT cluster formation on social sustainability (compiled by authors).

Here is demonstrated the concept of interaction between subsystems, its study concept and the whole of formulation and search of the solutions: the models of information knowledge, management of the solution, assessment of uncertainty, and the assessment of stochastic quantitative solutions and experts evaluation. But here we have an exceptional moment to recognize the individual assessment of the problems, when collected the compatibility between different aspects of development and it is here that expert assessment invoked the so-called stochastically informative expert methods. Experts indicate that the system is focused on quantitative interviews opportunities when the country's development system is analyzing and projecting. Practically it means, that information about the changes or caused problems in any subsystem or components is sent to other subsystems, which in turn demonstrates its reaction.

## 6. CONCLUSIONS

- In order to attract the new employees and retain workers, it is necessary to motivate the employees and to attract more sustainable investment for the labour market development. Also, for reaching better working results, it is necessary to determine more right for employees' and wage conditions.
- The methodology of sustainable investment determines the full value of investment by assigning monetary values to all of the costs and benefits - economic, social and environmental.
- The hypothesis is approved: the knowledge, innovation and technology constantly interact and their interaction leads to formation of multiple cluster, which creates preconditions to foster national social sustainability development, when versatile knowledge development has exclusive attention.
- In order to project sustainable development strategies, it is necessary to determine the development sustainability code – i.e. the system of knowledge, innovation and technology integration that leads the social sustainability.

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